



# **Grain Transportation Report**

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The next release is June 23, '05

**Barged Grain Tonnages Decline.** For first quarter 2005, barge grain movements averaged 565,000 tons per week (see table 1). This is a 7.5 percent decrease from first quarter 2004, and 23 percent less than the 5-year average.

Table 1--Weekly grain barge shipments, 2000-2005

|            | 1st quarter | 2d quarter | 3d quarter   | 4th quarter | Annual    |
|------------|-------------|------------|--------------|-------------|-----------|
| Year       | (JanMar.)   | (AprJune)  | (July-Sept.) | (OctDec.)   | (JanDec.) |
|            |             |            |              |             |           |
|            |             |            | 1,000 tons   |             |           |
|            |             |            |              |             |           |
| 2000       | 799         | 948        | 975          | 989         | 928       |
| 2001       | 784         | 834        | 973          | 1,031       | 906       |
| 2002       | 900         | 1,013      | 912          | 1,084       | 977       |
| 2003       | 730         | 822        | 749          | 970         | 818       |
| 2004       | 611         | 695        | 565          | 871         | 686       |
| 2005       | 565         |            |              |             |           |
|            |             |            |              |             |           |
| 5-yr. avg. | 731         | 862        | 835          | 989         | 863       |
|            |             |            |              |             |           |

Source: U.S. Army Corps of Engineers

Typically, first quarter barge movements are comparatively low, since the upper reaches of the Mississippi River are frozen from mid-December to mid-March. The Illinois and Ohio Rivers remain open, as well the Mississippi River at St. Louis and below.

Several factors contributed to this year's unusually low first quarter volumes. Grain and oilseeds were diverted to the Pacific Northwest to take advantage of more favorable ocean freight rates for that region. More soybeans were railed to the Pacific Coast to meet increased Asian demand.

The use of covered barges for non-agricultural commodities has increased,

reducing the availability of barges to transport grain. Importers of cement, iron ore, and other steel-related products have been using empty northbound grain barges to transport non-agricultural commodities to inland destinations. This creates delays in the normal grain barge repositioning process and has decreased first quarter movements. Northbound barges are delivered to non-grain areas, and must be moved to grain originating points after the non-grain cargo is unloaded and the barge has been cleaned. Furthermore, northbound barges with cargo travel slower than empty barges, adding more time to complete the cycle.

Adding to low first quarter volumes is the increasing number of grain barges being retired. The 2005 Barge Fleet Profile (Informa Economics) reports that in each of the last 6 years, the overall barge fleet has declined. However, Trinity Industry's Inland Barge Group reports strong orders for new hopper barges, which may indicate a recovery in the hopper barge industry. Jeffboat LLC, another barge builder and a division of America Commercial Barge Lines, has also indicated an increase in barge orders. <a href="http://www.trin.net/">http://www.trin.net/</a>, <a href="http://www.trin.net/">http://www.trin.net/</a>, <a href="http://www.trin.net/">http://www.trin.net/</a>,

Table 2--St. Louis to New Orleans - Tariff rate \$3.99 per ton

| Table 23t. | Louis to Mey | V Oneans - 1 | aiiii iate 45. | per ton     |
|------------|--------------|--------------|----------------|-------------|
|            | 1st quarter  | 2d quarter   | 3d quarter     | 4th quarter |
|            | (JanMar.)    | (AprJune)    | (July-Sept.)   | (OctDec.)   |
|            |              |              |                |             |
| 2000       | 145          | 110          | 201            | 153         |
| 2001       | 166          | 127          | 159            | 166         |
| 2002       | 126          | 100          | 113            | 175         |
| 2003       | 153          | 101          | 163            | 219         |
| 2004       | 138          | 119          | 225            | 287         |
| 2005       | 261          |              |                |             |
|            |              |              |                |             |
| 5-yr. avg. | 146          | 111          | 172            | 200         |

Source: USDA/AMS/TSB

As barges move more kinds of commodities, barge rates have increased. The average 2005 first quarter barge rate for St. Louis to the Gulf was 261 percent of tariff, an 89 percent increase from 2004 (261 tariff at a \$3.99 St. Louis tariff rate equals \$10.41 per ton) (see table 2).

New Website for Barge Data. Transportation Services Branch now hosts a website with downloadable barge data. Click on <a href="http://www.ams.usda.gov/tmd/TSB/barge.htm">http://www.ams.usda.gov/tmd/TSB/barge.htm</a> for data on barge shipments and freight rates. <a href="https://www.amstandor.new.gov/">Nick.Marathon@usda.gov</a>

### **Grain Transportation Indicators**

Table 1--Grain transport cost indicators\*

|                         | Truck    | Truck Rail Barge |          | Ocean    |          |
|-------------------------|----------|------------------|----------|----------|----------|
| Week ending             |          |                  |          | Gulf     | Pacific  |
| 06/15/05                | 153      | n/a              | 123      | 222      | 178      |
| Compared with last week | <b>†</b> | n/a              | <b>↓</b> | <b>↓</b> | <b>↓</b> |

\*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = nearby secondary rail market (\$/car);

barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

Source: Transportation & Marketing Programs/AMS/USDA

Table 2--Market update: U.S. origins to export position price spreads (\$/bushel)

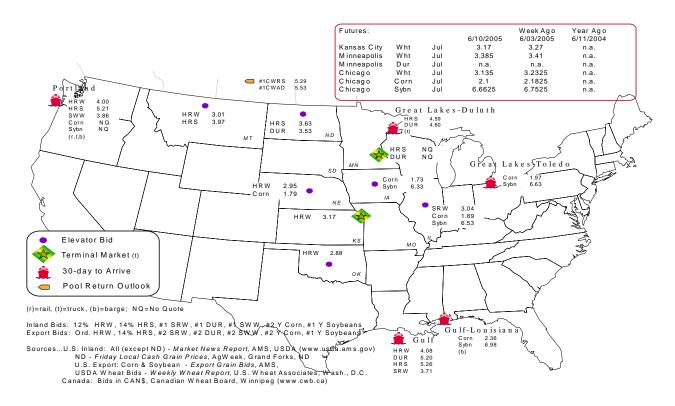
| Commodity | Origindestination | 6/10/2005 | 6/3/2005 |
|-----------|-------------------|-----------|----------|
| Corn      | ILGulf            | -0.47     | -0.48    |
| Corn      | NEGulf            | -0.57     | -0.59    |
| Soybean   | IAGulf            | -0.65     | -0.74    |
| HRW       | KSGulf            | -0.91     | -0.90    |
| HRS       | NDPortland        | -1.58     | -1.43    |

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1 **Grain bid summary** 



## **Rail Transportation**

Table 3--Rail deliveries to port (carloads)\*

|                         |                  |            | Cross-Border | Pacific   | Atlantic & |         |
|-------------------------|------------------|------------|--------------|-----------|------------|---------|
| Week ending             | Mississippi Gulf | Texas Gulf | Mexico       | Northwest | East Gulf  | Total   |
| 06/08/2005 <sup>p</sup> | 68               | 1,643      | 1,723        | 3,292     | 17         | 6,743   |
| $06/01/2005^{r}$        | 140              | 1,010      | 1,216        | 4,653     | 0          | 7,019   |
| 2005 YTD                | 5,751            | 37,624     | 39,081       | 102,899   | 7,167      | 192,522 |
| 2004 YTD                | 4,272            | 51,799     | 23,230       | 97,416    | 3,832      | 180,549 |
| 2005 as % of 2004       | 135              | 73         | 168          | 106       | 187        | 107     |
| Total 2004              | 10,475           | 92,073     | 67,992       | 209,625   | 10,986     | 391,151 |
| Total 2003**            | 14,843           | 88,194     | 48,805       | 157,125   | 20,509     | 329,476 |

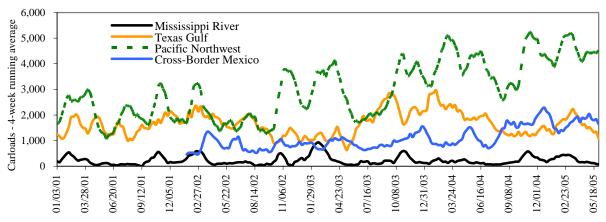
<sup>(\*)</sup> Incomplete Data; as of 9/22/04, Cross-Border movements included; (\*\*) Excludes 53rd week; YTD = year-to-date; p = preliminary data;

r = revised data

Source: Transportation & Marketing Programs/AMS/USDA

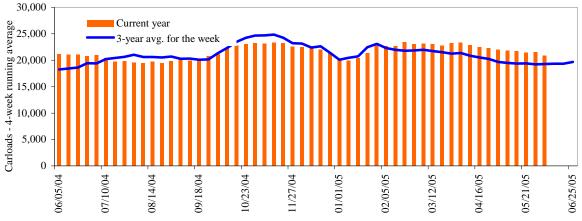
Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2 Rail deliveries to port



 $Source: \ Transportation \ \& \ Marketing \ Programs/AMS/USDA$ 

Figure 3 **Total weekly U.S. grain car loadings for Class I railroads** 



Source: Association of American Railroads

Table 4--Class I rail carrier grain car bulletin (grain carloads originated)

|                     | E       | ast     |         | West   |         | U.S. total | Car     | nada    |
|---------------------|---------|---------|---------|--------|---------|------------|---------|---------|
| Week ending         | CSXT    | NS      | BNSF    | KCS    | UP      |            | CN      | CP      |
| 06/04/05            | 2,585   | 2,865   | 6,870   | 420    | 5,446   | 18,186     | 3,494   | 3,663   |
| This week last year | 2,742   | 2,886   | 7,826   | 300    | 5,405   | 19,159     | 4,091   | 4,177   |
| 2005 YTD            | 66,497  | 74,252  | 204,406 | 13,708 | 132,881 | 491,744    | 94,507  | 88,454  |
| 2004 YTD            | 64,114  | 72,141  | 199,494 | 11,055 | 146,228 | 493,032    | 103,510 | 81,348  |
| 2005 as % of 2004   | 104     | 103     | 102     | 124    | 91      | 100        | 91      | 109     |
| Total 2004          | 142,206 | 169,650 | 458,587 | 27,618 | 327,510 | 1,125,571  | 237,664 | 210,060 |

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

Table 5--Rail car auction offerings, week ending 6/11/05 (\$/car)\*

| Delivery for:     | Jul. 05  | Aug. 05 | Sep. 05  |
|-------------------|----------|---------|----------|
| BNSF <sup>1</sup> |          |         |          |
| COT/N. grain      | no bid   | \$21    | \$76     |
| COT/S. grain      | no bid   | \$7     | \$98     |
| $UP^2$            |          |         |          |
| GCAS/Region 1     | no bid   | \$1     | no offer |
| GCAS/Region 2     | no offer | \$1     | no offer |

<sup>\*</sup>Average premium/discount to tariff, last auction

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA

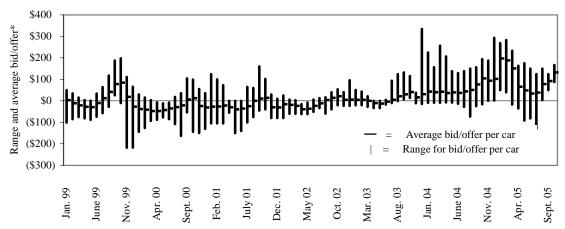
Rail service may be ordered directly from the railroad via **auction** for guaranteed service or tariff for nonguaranteed service or through the secondary market.

<sup>&</sup>lt;sup>1</sup>BNSF - COT = Certificate of Transportation

 $<sup>^{2}</sup>$ UP - GCAS = Grain Car Allocation System

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4 **Secondary rail car market, delivery month-year** 



\*up to 6 months of trading

Source: Transportation & Marketing Programs/AMS/USDA

**Average bid/offer** is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Range for bid/offer** shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Table 6--Weekly secondary rail car market, week ending 6/11/05 (\$/car)\*

|                       | Delivery period |        |        |        |  |
|-----------------------|-----------------|--------|--------|--------|--|
|                       | Jul-05          | Aug-05 | Sep-05 | Oct-05 |  |
| BNSF-GF               | -\$50           | \$46   | \$84   | \$100  |  |
| Change from last week | -\$50           | -\$8   | -\$12  | \$12   |  |
| UP-Pool               | -\$130          | \$4    | \$57   | \$125  |  |
| Change from last week | -\$80           | -\$29  | -\$47  | -\$13  |  |

<sup>\*</sup>Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

Table 7--Tariff rail rates for unit and shuttle train shipments\*

| Effective date:    |                    |                    |          |                 |               |
|--------------------|--------------------|--------------------|----------|-----------------|---------------|
| 6/6/2005           | Origin region      | Destination region | Rate/car | Rate/metric ton | Rate/bushel** |
| <u>Unit train*</u> |                    |                    |          |                 |               |
| Wheat              | Chicago, IL        | Albany, NY         | \$1,861  | \$20.51         | \$0.56        |
|                    | Kansas City, MO    | Galveston, TX      | \$2,020  | \$22.27         | \$0.61        |
|                    | South Central, KS  | Galveston, TX      | \$2,335  | \$25.74         | \$0.70        |
|                    | Minneapolis, MN    | Houston, TX        | \$2,420  | \$26.68         | \$0.73        |
|                    | St. Louis, MO      | Houston, TX        | \$2,245  | \$24.75         | \$0.67        |
|                    | South Central, ND  | Houston, TX        | \$3,709  | \$40.88         | \$1.11        |
|                    | Minneapolis, MN    | Portland, OR       | \$4,198  | \$46.27         | \$1.26        |
|                    | South Central, ND  | Portland, OR       | \$4,198  | \$46.27         | \$1.26        |
|                    | Northwest, KS      | Portland, OR       | \$4,266  | \$47.02         | \$1.28        |
|                    | Chicago, IL        | Richmond, VA       | \$2,002  | \$22.07         | \$0.60        |
| Corn               | Chicago, IL        | Baton Rouge, LA    | \$2,510  | \$27.67         | \$0.70        |
|                    | Council Bluffs, IA | Baton Rouge, LA    | \$2,440  | \$26.90         | \$0.68        |
|                    | Kansas City, MO    | Dalhart, TX        | \$1,965  | \$21.66         | \$0.55        |
|                    | Minneapolis, MN    | Portland, OR       | \$3,600  | \$39.68         | \$1.01        |
|                    | Evansville, IN     | Raleigh, NC        | \$1,791  | \$19.74         | \$0.50        |
|                    | Columbus, OH       | Raleigh, NC        | \$1,700  | \$18.74         | \$0.48        |
|                    | Council Bluffs, IA | Stockton, CA       | \$3,606  | \$39.75         | \$1.01        |
| Soybeans           | Chicago, IL        | Baton Rouge, LA    | \$2,455  | \$27.06         | \$0.74        |
|                    | Council Bluffs, IA | Baton Rouge, LA    | \$2,455  | \$27.06         | \$0.74        |
|                    | Minneapolis, MN    | Portland, OR       | \$3,610  | \$39.79         | \$1.08        |
|                    | Evansville, IN     | Raleigh, NC        | \$1,791  | \$19.74         | \$0.54        |
|                    | Chicago, IL        | Raleigh, NC        | \$2,391  | \$26.36         | \$0.72        |
| Shuttle Train*     |                    |                    |          |                 |               |
| Wheat              | St. Louis, MO      | Houston, TX        | \$1,895  | \$20.89         | \$0.57        |
|                    | Minneapolis, MN    | Portland, OR       | \$3,898  | \$42.97         | \$1.17        |
| Corn               | Fremont, NE        | Houston, TX        | \$2,665  | \$29.38         | \$0.75        |
|                    | Minneapolis, MN    | Portland, OR       | \$3,450  | \$38.03         | \$0.97        |
| Soybeans           | Council Bluffs, IA | Houston, TX        | \$2,785  | \$30.70         | \$0.84        |
|                    | Minneapolis, MN    | Portland, OR       | \$3,410  | \$37.59         | \$1.02        |

<sup>\*</sup>A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

<sup>\*\*</sup>Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Table 8--Tariff rail rates for U.S. bulk grain shipments to the U.S.-Mexico border

| Effective da | ite:         |                        |            |            |                 |               |
|--------------|--------------|------------------------|------------|------------|-----------------|---------------|
| 6/6/2005     | Origin state | Border crossing region | Train size | Rate/car 1 | Rate/metric ton | Rate/bushel** |
| Wheat        | KS           | Brownsville, TX        | Shuttle    | \$2,851    | \$29.13         | \$0.79        |
|              | ND           | Eagle Pass, TX         | Shuttle    | \$5,399    | \$55.17         | \$1.50        |
|              | OK           | El Paso, TX            | Shuttle    | \$2,264    | \$23.13         | \$0.63        |
|              | OK           | El Paso, TX            | Unit       | \$2,432    | \$24.85         | \$0.68        |
|              | AR           | Laredo, TX             | Unit       | \$2,383    | \$24.35         | \$0.66        |
|              | IL           | Laredo, TX             | Unit       | \$3,188    | \$32.57         | \$0.89        |
|              | MT           | Laredo, TX             | Shuttle    | \$4,190*   | \$42.81         | \$1.16        |
|              | TX           | Laredo, TX             | Shuttle    | \$1,993*   | \$20.36         | \$0.55        |
|              | MO           | Laredo, TX             | Shuttle    | \$2,731    | \$27.90         | \$0.76        |
|              | WI           | Laredo, TX             | Unit       | \$3,405    | \$34.79         | \$0.95        |
| Corn         | NE           | Brownsville, TX        | Shuttle    | \$3,104    | \$31.72         | \$0.80        |
|              | NE           | Brownsville, TX        | Unit       | \$3,645*   | \$37.24         | \$0.95        |
|              | IA           | Eagle Pass, TX         | Shuttle    | \$3,334    | \$34.07         | \$0.86        |
|              | MO           | Eagle Pass, TX         | Shuttle    | \$3,040*   | \$31.06         | \$0.79        |
|              | NE           | Eagle Pass, TX         | Shuttle    | \$3,440*   | \$35.15         | \$0.89        |
|              | IA           | Laredo, TX             | Unit       | \$3,258    | \$33.29         | \$0.84        |
| Soybean      | IA           | Brownsville, TX        | Shuttle    | \$2,880    | \$29.43         | \$0.80        |
|              | MN           | Brownsville, TX        | Shuttle    | \$3,176    | \$32.45         | \$0.88        |
|              | NE           | Brownsville, TX        | Shuttle    | \$2,688    | \$27.47         | \$0.75        |
|              | NE           | Eagle Pass, TX         | Shuttle    | \$2,765    | \$28.25         | \$0.77        |
|              | IA           | Laredo, TX             | Unit       | \$2,918    | \$29.82         | \$0.81        |

A unit train refers to shipments of at least 52 cars. Shuttle train are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

Sources: www.bnsf.com, www.uprr.com

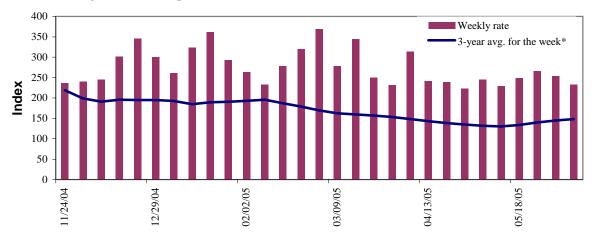
<sup>&</sup>lt;sup>1</sup>Rates are based upon published tariff rates for high-capacity rail cars.

<sup>\*</sup>High-capacity rate not available, rate estimated using published low-capacity tariff rate x 1.08

<sup>\*\*</sup>Approximate load per car = 97.87 metric tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

#### **Barge Transportation**

Figure 5 **Illinois River barge rate index - quotes** 



Note: Index = percent of tariff rate; \*4-week moving average Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market** bids are indicators of grain transport supply and demand.

Table 9--Barge rate quotes: southbound barge freight

| Location        | 6/8/2005 | 6/1/2005 | July '05 | Sept. '05 |
|-----------------|----------|----------|----------|-----------|
| Twin Cities     | 287      | 282      | 295      | 340       |
| Mid-Mississippi | 243      | 264      | 269      | 327       |
| Illinois River  | 233      | 253      | 256      | 324       |
| St. Louis       | 178      | 188      | 207      | 321       |
| Lower Ohio      | 169      | 183      | 207      | 325       |
| Cairo-Memphis   | 167      | 174      | 200      | 314       |

Index = percent of tariff, based on 1976 tariff benchmark rate Source: Transportation & Marketing Programs/AMS/USDA

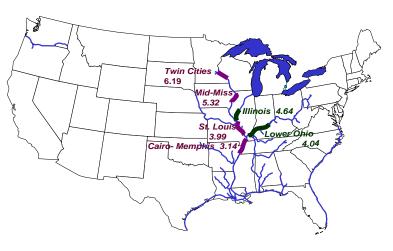
Calculating barge rate per ton:

(Index \* 1976 tariff benchmark rate per ton)/100

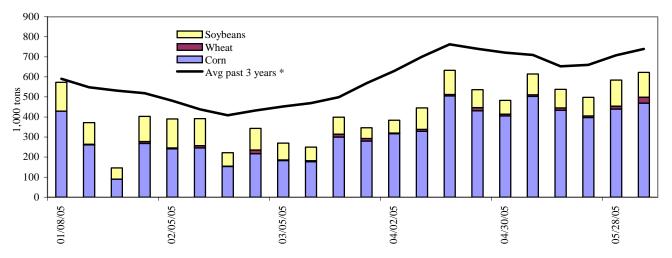
Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

Note: The Illinois barge rate is for Beardstown, IL, La Grange Lock & Dam

Figure 6 **Benchmark tariff rates** 



 $\label{eq:Figure 7} \textbf{Barge movements on the Mississippi River (Locks~27-Granite~City, IL)}$ 



<sup>\* 4-</sup>week moving average

Source: Transportation & Marketing Programs/AMS/USDA

Table 10--Barge grain movements (1,000 tons)

| Week ending 6/04/2005  | Corn   | Wheat | Soybean | Other | Total  |
|------------------------|--------|-------|---------|-------|--------|
| Mississippi River      |        |       |         |       |        |
| Rock Island, IL (L15)  | 173    | 9     | 41      | 0     | 222    |
| Winfield, MO (L25)     | 289    | 24    | 97      | 2     | 412    |
| Alton, IL (L26)        | 460    | 30    | 115     | 2     | 606    |
| Granite City, IL (L27) | 469    | 30    | 123     | 2     | 623    |
| Illinois River (L8)    | 161    | 5     | 22      | 0     | 188    |
| Ohio River (L52)       | 49     | 0     | 7       | 0     | 56     |
| Arkansas River (L1)    | 0      | 17    | 9       | 0     | 26     |
| 2005 YTD               | 9,005  | 682   | 3,439   | 324   | 13,450 |
| 2004 YTD               | 10,442 | 1,128 | 2,293   | 342   | 14,205 |
| 2005 as % of 2004 YTD  | 86     | 60    | 150     | 95    | 95     |
| Total 2004             | 26,235 | 2,701 | 6,784   | 843   | 36,563 |

 $YTD\ (year-to-date)\ and\ calendar\ year\ total\ includes\ Miss/27,\ Ohio/52,\ and\ Ark/1.$ 

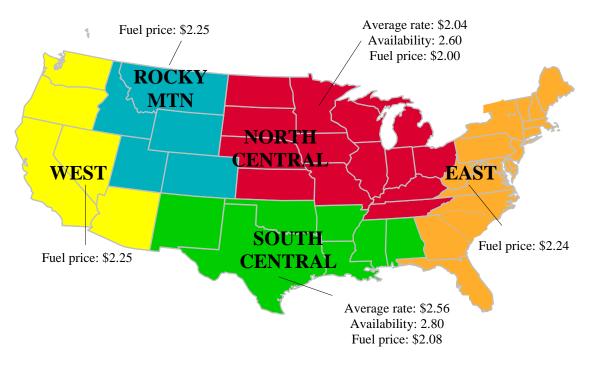
"Other" refers to oats, barley, sorghum, and rye.

Source: U.S. Army Corp of Engineers (www.mvr.usace.army.mil/mvrimi/omni/webrpts/default.asp)

Note: Total may not add exactly, due to rounding

## **Truck Transportation**

Figure 8
U.S. grain truck market advisory, 1st quarter 2005\*



\*Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles

Note: Fuel prices are a quarterly average (unit per gallon)

Fuel price data source: Energy Information Administration, U.S. Department of Energy, www.eia.doe.gov

Table 11--U.S. grain truck market overview. 1st quarter 2005

| Table 11U.S. grain truck market overview, 1 " quarter 2005 |          |               |           |                    |                     |                       |  |
|--|----------|---------------|-----------|--------------------|---------------------|-----------------------|--|
| Region/commodity*  | 25 miles | 100 miles     | 200 miles | Truck availability | Truck activity      | Future truck activity |  |
|  |          |               | •         | Rating com         | pared to same quart | er last year          |  |
|  |          | Rate per mile |           | 1=Very easy        | 1=M                 | uch lower             |  |
|  |          | rane per mine |           | to                 |                     | to                    |  |
|  |          |               |           | 5=Very difficult   | 5=M                 | uch higher            |  |
| National average <sup>1</sup>                              | 2.91     | 1.96          | 1.73      | 2.6                | 2.6                 | 2.9                   |  |
| North Central region <sup>2</sup>                          | 2.65     | 1.89          | 1.59      | 2.6                | 2.8                 | 3.1                   |  |
| Corn   | 3.25     | 2.37          | 2.01      | 2.9                | 2.4                 | 3.1                   |  |
| Wheat  | 1.52     | 1.44          | 1.39      | 2.6                | 2.9                 | 2.9                   |  |
| Soybean  | 3.25     | 2.37          | 2.01      | 2.7                | 2.7                 | 3.2                   |  |
| South Central region <sup>2</sup>                          | 3.34     | 2.25          | 2.08      | 2.8                | 2.1                 | 2.4                   |  |
| Corn   | 3.02     | 2.19          | 1.98      | 2.8                | 2.0                 | 2.0                   |  |
| Wheat  | 3.13     | 2.18          | 2.08      | 3.0                | 2.3                 | 2.7                   |  |
| Soybean  | 4.71     | 2.32          | 2.06      | 2.3                | 2.0                 | 2.3                   |  |

Rates are based on trucks with 80,000 lb weight limit

 $Source: \ Transportation \ and \ Marketing \ Programs/AMS/USDA$ 

<sup>\*</sup>Commodity averages based on truck rates for top producing states based on National Agricultural Statistics Service/USDA

<sup>&</sup>lt;sup>1</sup>National average includes: AR, CO, IA, IL, IN, KS, LA, MN, MS, ND, NE, OH, OK, OR, SD, TX, and WA.

<sup>&</sup>lt;sup>2</sup>Commodity rates per mile include the average of the top 3 producing states within the region.

The **weekly diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

Table 12--Retail on-highway diesel prices\*, week ending 06/13/05 (US\$/gallon)

|        |                  |       | Chang    | e from   |
|--------|------------------|-------|----------|----------|
| Region | Location         | Price | Week ago | Year ago |
| I      | East Coast       | 2.308 | 0.045    | 0.621    |
|        | New England      | 2.399 | 0.046    | 0.589    |
|        | Central Atlantic | 2.399 | 0.056    | 0.619    |
|        | Lower Atlantic   | 2.261 | 0.040    | 0.625    |
| II     | Midwest          | 2.248 | 0.050    | 0.591    |
| III    | Gulf Coast       | 2.247 | 0.034    | 0.612    |
| IV     | Rocky Mountain   | 2.210 | 0.019    | 0.331    |
| V      | West Coast       | 2.364 | 0.025    | 0.366    |
|        | California       | 2.457 | 0.036    | 0.406    |
| Total  | U.S.             | 2.276 | 0.042    | 0.565    |

<sup>\*</sup>Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

# **Grain Exports**

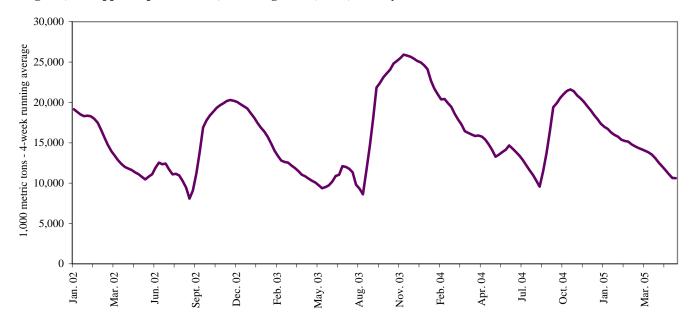
Table 13--U.S. export balances (1,000 metric tons)

|                                 |        |       | W     | heat  |       |           | Corn   | Soybeans | Total   |
|---------------------------------|--------|-------|-------|-------|-------|-----------|--------|----------|---------|
| Week ending 1/                  | HRW    | SRW   | HRS   | SWW   | DUR   | All wheat |        |          |         |
| 6/2/2005                        | 1,465  | 354   | 1,279 | 427   | 124   | 3,649     | 6,386  | 1,522    | 11,557  |
| This week year ago              | 1,807  | 1,497 | 1,451 | 743   | 175   | 5,673     | 8,520  | 1,111    | 15,304  |
| Cumulative exports-crop year 2/ | ,      |       |       |       |       |           |        |          |         |
| 2004/05 YTD                     | 48     | 5     | 32    | 21    | 0     | 105       | 34,419 | 27,801   | 62,325  |
| 2003/04 YTD                     | 134    | 18    | 54    | 63    | 22    | 290       | 36,742 | 22,918   | 59,950  |
| 2004/05 as % of 2003/04         | 36     | 28    | 59    | 33    | 0     | 36        | 94     | 121      | 104     |
| 2003/04 Total                   | 12,697 | 3,785 | 6,928 | 4,889 | 1,053 | 29,353    | 47,704 | 24,102   | 101,159 |
| 2002/03 Total                   | 6,896  | 2,899 | 6,645 | 3,517 | 720   | 20,677    | 39,646 | 28,908   | 89,231  |

 $Note: \ \ YTD = year-to-date. \ \ Crop \ year: wheat = 6/01-5/31, \ corn \ \& \ soybeans = 9/01-8/31, \ 1/ = Current \ outstanding \ unshipped \ export \ sales \ to \ date \ \ outstanding \ unshipped \ export \ sales \ to \ date \ \ outstanding \ unshipped \ export \ sales \ to \ date \ \ outstanding \ unshipped \ export \ sales \ to \ date \ \ outstanding \ unshipped \ export \ sales \ to \ date \ \ outstanding \ unshipped \ export \ sales \ to \ date \ \ outstanding \ unshipped \ export \ sales \ to \ date \ \ outstanding \ unshipped \ export \ sales \ to \ date \ \ outstanding \ unshipped \ export \ sales \ \ outstanding \ unshipped \ export \ sales \ \ outstanding \ unshipped \ export \ \ outstanding \ unshipped \ export \ \ outstanding \ unshipped \ \ outstanding \ outstanding \ outstanding \ outs$ 

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Figure 9 U.S. grain, unshipped export balance, including wheat, corn, and soybean sales



Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

<sup>2/</sup> = New crop year in effect for wheat

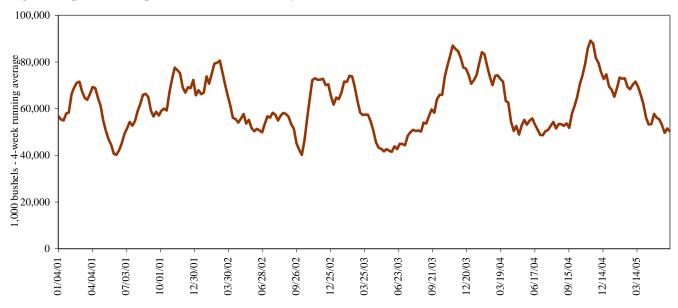
Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)

|                   | Pa     | acific Reg | ion      | M     | ississippi ( | Gulf     | ŗ     | Texas Gu | lf       | P       | ort Region tota | al    |
|-------------------|--------|------------|----------|-------|--------------|----------|-------|----------|----------|---------|-----------------|-------|
| Week ending       | Wheat  | Corn       | Soybeans | Wheat | Corn         | Soybeans | Wheat | Corn     | Soybeans | Pacific | Mississippi     | Texas |
| 06/09/05          | 99     | 74         | 62       | 109   | 635          | 116      | 84    | 5        | 0        | 235     | 859             | 90    |
| 2005 YTD          | 4,692  | 4,188      | 3,201    | 2,394 | 11,978       | 7,806    | 2,556 | 267      | 6        | 12,081  | 22,177          | 2,829 |
| 2004 YTD          | 5,111  | 4,930      | 1,764    | 3,300 | 14,224       | 5,763    | 4,385 | 49       | 14       | 11,806  | 23,288          | 4,448 |
| 2005 as % of 2004 | 92     | 85         | 181      | 73    | 84           | 135      | 58    | 542      | 43       | 102     | 95              | 64    |
| 2004 Total *      | 12,121 | 9,741      | 4,753    | 7,154 | 32,851       | 15,540   | 7,936 | 131      | 23       | 26,615  | 55,546          | 8,089 |

Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa); YTD: year-to-date; \* includes 53rd week

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2004.

Figure 10 U.S. grain inspected for export (wheat, corn, and soybeans)



Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa)

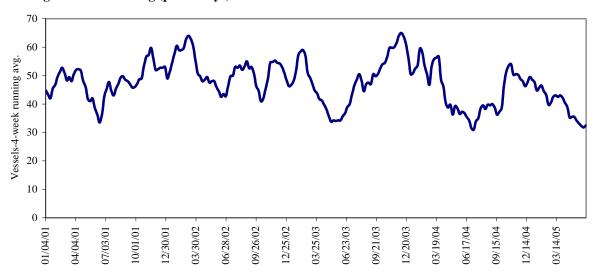
# **Ocean Transportation**

Table 15--Weekly port region grain ocean vessel activity (number of vessels)

|            |         |        |          | Pacific   | Vancouver |
|------------|---------|--------|----------|-----------|-----------|
|            |         | Gulf   |          | Northwest | B.C.      |
|            |         | Loaded | Due next |           |           |
| Date       | In port | 7-days | 10-days  | In port   | In port   |
| 6/9/2005   | 14      | 32     | 47       | 6         | 8         |
| 6/2/2005   | 20      | 30     | 44       | 6         | 12        |
| 2004 range | (1043)  | (2573) | (3896)   | (416)     | (018)     |
| 2004 avg.  | 24      | 45     | 61       | 9         | 6         |

Source: Transportation & Marketing Programs/AMS/USDA

Figure 11 **Gulf Port grain vessel loading (past 7 days)** 



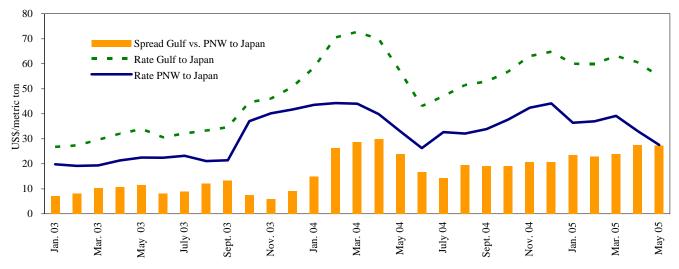
Source: Transportation & Marketing Programs/AMS/USDA

Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US\$/metric ton)

| Countries/<br>regions | 2005<br>1st qtr | 2004<br>1st qtr | Percent<br>change | Countries/<br>regions | 2005<br>1st qtr | 2004<br>1st qtr | Percent change |
|-----------------------|-----------------|-----------------|-------------------|-----------------------|-----------------|-----------------|----------------|
| Gulf to               | _               |                 |                   | Pacific NW to         |                 |                 |                |
| Japan                 | \$60.18         | \$73.75         | -18               | Japan                 |                 |                 |                |
| China                 | \$57.50         | \$46.63         | 23                |                       |                 |                 |                |
| Taiwan                |                 | \$68.00         |                   | Argentina/Brazil to   |                 |                 |                |
| N. Africa             | \$48.00         | \$46.25         | 4                 | N. Africa             | \$59.25         | \$61.07         | -3             |
| Med. Sea              |                 | \$46.50         |                   | China                 |                 |                 |                |

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 12 **Grain vessel rates, U.S. to Japan** 



Source: Baltic Exchange (www.balticexchange.com)

Table 17--Ocean freight rates for selected shipments, week ending 06/11/05

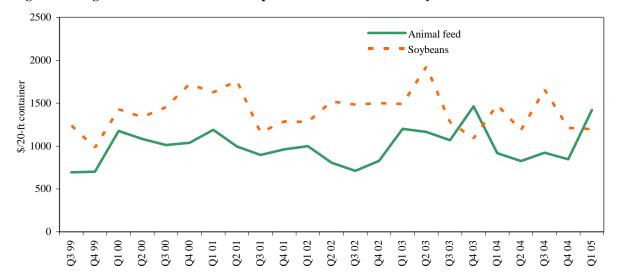
| Export region | Import region | Grain     | Month     | Volume loads<br>(metric tons) | Freight rate (\$/metric ton) |
|---------------|---------------|-----------|-----------|-------------------------------|------------------------------|
| U.S. Gulf     | Djibouti*     | Wheat     | Jun 1/10  | 22,740                        | 89.29                        |
| U.S. Gulf     | Honduras      | Wheat     | May 11/21 | 9,330                         | 39.99                        |
| U.S. Gulf     | Algeria       | Hvy Grain | Jun 10/15 | 25,000                        | 42.50                        |
| St. Lawrence  | S. Africa     | Wheat     | Jun 10/20 | 34,000                        | 42.00                        |
| Great Lakes   | Algeria       | Hvy Grain | Jun 20/30 | 18,000                        | 57.00                        |
| River Plate   | Turkey        | Soybean   | Jun 1/8   | 20,000                        | 49.00                        |

Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

Source: Maritime Research Inc. (www.maritime-research.com)

<sup>\*</sup>Most food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Figure 13
Weighted average rates<sup>1</sup> for containerized shipments of animal feed and soybeans to selected Asian countries



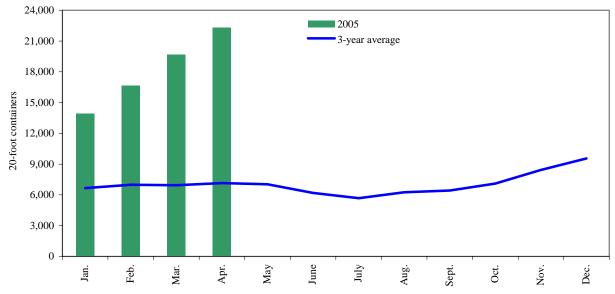
<sup>&</sup>lt;sup>1</sup>Animal Feed: Busan-Korea (22%), Kaohsiung-Taiwan (28%), Tokyo-Japan (38%), Hong Kong (9%), Bangkok-Thailand (3%) and soybeans: Busan-Korea (1%), Keelung-Taiwan (81%), Tokyo-Japan (12%), Bangkok-Thailand (4%), Hong Kong (1%) Quarter 1, 2005.

Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

The percentage of U.S. grain exported in containers was 3 percent in 2004.

 ${\bf Figure~14} \\ {\bf Monthly~shipments~of~containerized~grain~to~Asia~for~2005~compared~with~a~3-year~average} \\$ 

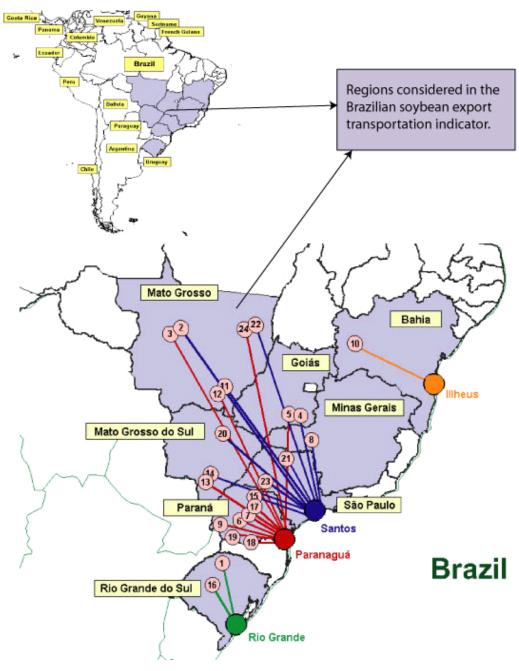


Source: Port Import Export Reporting Service (PIERS), Journal of Commerce

Note: PIERS data is available with a lag of approximately 40 days

# **Brazil Transportation**

Figure 15 Routes and Regions considered in the Brazilian soybean export transportation indicator 1



<sup>&</sup>lt;sup>1</sup>Regions comprised 84 percent of Brazilian soybean production, 2003 Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

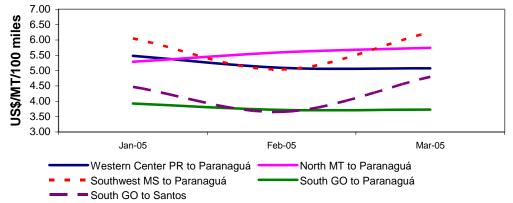
Table 18--Truck rates for selected Brazilian soybean export transportation routes, 1st quarter 2005

|         | Origin <sup>1</sup>                   |             | Distance             |                        | Freight price                |
|---------|---------------------------------------|-------------|----------------------|------------------------|------------------------------|
| Route # | (reference city)                      | Destination | (miles) <sup>2</sup> | Weight(%) <sup>3</sup> | (per 100 miles) <sup>4</sup> |
| 1       | Northwest RS <sup>5</sup> (Cruz Alta) | Rio Grande  | 288                  | 16.6                   | 4.46                         |
| 2       | North MT(Sorriso)                     | Santos      | 1190                 | 10.1                   | 5.86                         |
| 3       | North MT(Sorriso)                     | Paranaguá   | 1262                 | 9.5                    | 5.54                         |
| 4       | South GO(Rio Verde)                   | Santos      | 587                  | 7.0                    | 4.40                         |
| 5       | South GO(Rio Verde)                   | Paranaguá   | 726                  | 5.6                    | 3.79                         |
| 6       | North Center PR(Londrina)             | Paranaguá   | 268                  | 4.4                    | 7.19                         |
| 7       | Western Center PR(Mamborê)            | Paranaguá   | 311                  | 3.9                    | 5.22                         |
| 8       | Triangle MG(Uberaba)                  | Santos      | 339                  | 3.8                    | 7.28                         |
| 9       | West PR(Assis Chateaubriand)          | Paranaguá   | 377                  | 3.7                    | 5.83                         |
| 10      | West Extreme BA(São Desidério)        | Ilhéus      | 544                  | 3.6                    | 6.53                         |
| 11      | Southeast MT(Primavera do Leste)      | Santos      | 901                  | 3.6                    | 6.18                         |
| 12      | Southeast MT(Primavera do Leste)      | Paranaguá   | 975                  | 3.3                    | 6.22                         |
| 13      | Southwest MS(Maracaju)                | Paranaguá   | 612                  | 3.1                    | 5.78                         |
| 14      | Southwest MS(Maracaju)                | Santos      | 652                  | 2.9                    | 5.84                         |
| 15      | West PR(Assis Chateaubriand)          | Santos      | 550                  | 2.5                    | 6.18                         |
| 16      | Western Center RS(Tupanciretã)        | Rio Grande  | 273                  | 2.4                    | 5.03                         |
| 17      | Southwest PR(Chopinzinho)             | Paranaguá   | 291                  | 2.3                    | 6.00                         |
| 18      | Eastern Center PR(Castro)             | Paranaguá   | 130                  | 2.3                    | 10.20                        |
| 19      | South Center PR(Guarapuava)           | Paranaguá   | 204                  | 2.1                    | 8.39                         |
| 20      | North Center MS(São Gabriel do Oeste) | Santos      | 720                  | 2.0                    | 5.39                         |
| 21      | Ribeirão Preto SP(Guairá)             | Santos      | 314                  | 1.5                    | 6.38                         |
| 22      | Northeast MT(Canarana)                | Santos      | 950                  | 1.4                    | 6.66                         |
| 23      | Assis SP(Palmital)                    | Santos      | 285                  | 1.2                    | 6.16                         |
| 24      | Northeast MT(Canarana)                | Paranaguá   | 1075                 | 1.2                    | 5.90                         |
|         | Average                               | -           | 626                  | 100                    | 5.67                         |

Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price

Figure 16

Truck rates for selected Brazilian soybean export transportation routes



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

<sup>&</sup>lt;sup>2</sup>Distance from the main city of the considered region to the mentioned ports

<sup>&</sup>lt;sup>3</sup>The weight is directly proportional to the amount of production in each region

<sup>&</sup>lt;sup>4</sup>US\$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

<sup>&</sup>lt;sup>5</sup>RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 19--Monthly Brazilian soybean export truck transportation cost index

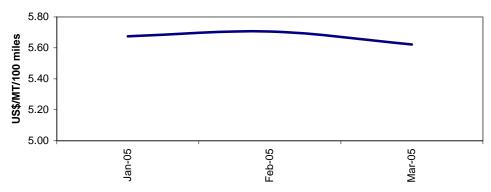
| Month   | Freight price*<br>(per 100 miles) | Index variation (%)<br>(Base: prior month) | Index value<br>(Base: Jan. 05 = 100) |
|---------|-----------------------------------|--|--------------------------------------|
| Jan. 05 | 5.67                              |  | 100.00                               |
| Feb. 05 | 5.71                              | 0.5  | 100.54                               |
| Mar. 05 | 5.62                              | -1.5                                       | 99.08                                |

<sup>\*</sup>weighted average and quoted in US\$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 17

Brazilian soybean export truck transportation weighted average prices, 2005



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 20--Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)\*

|            | 2005    |  |
|------------|---------|--|
| Ports      | 1st qtr |  |
| Santos     | \$45.53 |  |
| Paranagua  | \$44.64 |  |
| Rio Grande | \$44.20 |  |

<sup>\*</sup>correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

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#### **Related Websites**

Agricultural Container Indicators
Ocean Rate Bulletin

http://www.ams.usda.gov/tmd2/agci/ http://www.ams.usda.gov/tmd/Ocean/index.asp

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